

APR 07 2010**PATENT**

PATENT APP. SER. NO. 10/046,404

ECLIPSE GROUP DOCKET NO. H103027USU (P02017US)

AMENDMENTS**TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An acoustic waveguide, comprising:
 - a first control curve;
 - a second control curve;
 - a third control curve;
 - a fourth control curve; and
 - a continuous three-dimensional surface coincident with the first control curve, the second control curve, the third control curve and the fourth control curve that ~~intersect~~intersects a circular throat end and a non-elliptical closed control ~~surface~~curve that defines a mouth.
2. (canceled).
3. (original): The acoustic waveguide of claim 1, wherein the continuous three-dimensional surface further includes: a minimum surface area axial section plane of the continuous three-dimensional surface formed from the first control curve, second control curve, third control curve, and fourth control curve.
4. (original): The acoustic waveguide of claim 3, wherein the minimum surface area axial section plane is at the circular throat end of the acoustic waveguide.
5. (currently amended): The acoustic waveguide of claim 1, wherein the first control curve is symmetrical about ~~[[an]]~~a first axis with the second control curve.
6. (currently amended): The acoustic waveguide of claim 5, wherein the third control curve is symmetrical about ~~[[the]]~~a second axis with the fourth control curve.
7. (previously presented): A method for creation of an acoustic waveguide, comprising:
 - identifying a first control curve;
 - identifying a second control curve that mirrors the first control curve;

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- identifying a third control curve;
identifying a fourth control curve that mirrors the third control curve; and
generating a continuous three-dimensional surface formed by extending the first control curve, second control curve, third control curve and fourth control curve to intersect a circular throat end and a non-elliptical closed control curve forming a mouth.
- 8-10. (canceled).
11. (currently amended): The acoustic waveguide of claim 3, where the minimum surface area axial section plane is disposed at a midsection of the acoustic waveguide axially between the circular throat end and the non-elliptical closed control surfacecurve.
12. (currently amended): An acoustic waveguide, comprising:
a first control curve;
a second control curve;
a third control curve;
a fourth control curve; and
a continuous three-dimensional surface swept about a central axis of the acoustic waveguide with minimal discontinuities and coincident with the first control curve, the second control curve, the third control curve and the fourth control curve that ~~intersect~~intersects a circular throat end and a non-elliptical closed control surfacecurve that defines a mouth.
13. (currently amended): An acoustic waveguide, comprising:
a first control curve;
a second control curve;
a third control curve;
a fourth control curve; and
a continuous three-dimensional surface coincident with the first control curve, the second control curve, the third control curve and the fourth control curve that ~~intersect~~intersects a circular throat end and a non-elliptical closed control surfacecurve that defines a mouth, the continuous three-dimensional surface comprising a minimum surface area axial section plane formed from the first control curve, second control curve, third control curve, and fourth control curve, where the minimum surface area axial

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section plane is disposed at a midsection of the acoustic waveguide axially between the circular throat end and the non-elliptical closed control ~~surface~~curve.

14. (currently amended): An acoustic waveguide, comprising:
 - a first control curve;
 - a second control curve;
 - a third control curve;
 - a fourth control curve; and
 - a continuous three-dimensional surface coincident with the first control curve, the second control curve, the third control curve and the fourth control curve that ~~interseet~~intersects a circular throat end and a non-elliptical closed control ~~surface~~curve that defines a mouth, where each of the first, second, third and fourth control curves is convergent-divergent relative to an axial centerline of the acoustic waveguide.
15. (previously presented): The acoustic waveguide of claim 12, wherein the continuous three-dimensional surface further includes a minimum surface area axial section plane of the continuous three-dimensional surface formed from the first control curve, second control curve, third control curve, and fourth control curve.
16. (previously presented): The acoustic waveguide of claim 15, wherein the minimum surface area axial section plane is at the circular throat end of the acoustic waveguide.
17. (currently amended): The acoustic waveguide of claim 15, where the minimum surface area axial section plane is disposed at a midsection of the acoustic waveguide axially between the circular throat end and the non-elliptical closed control ~~surface~~curve.
18. (currently amended): The acoustic waveguide of claim 12, wherein the first control curve is symmetrical about ~~[[an]]~~a first axis with the second control curve.
19. (currently amended): The acoustic waveguide of claim 12, wherein the third control curve is symmetrical about ~~[[the]]~~a second axis with the fourth control curve.
20. (canceled).
21. (currently amended): The acoustic waveguide of claim 13, wherein the first control curve is symmetrical about ~~[[an]]~~a first axis with the second control curve.

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22. (currently amended): The acoustic waveguide of claim 13, wherein the third control curve is symmetrical about ~~[[the]]~~ a second axis with the fourth control curve.
23. (canceled).
24. (previously presented): The acoustic waveguide of claim 14, wherein the continuous three-dimensional surface further includes a minimum surface area axial section plane of the continuous three-dimensional surface formed from the first control curve, second control curve, third control curve, and fourth control curve.
25. (currently amended): The acoustic waveguide of claim ~~[[23]]~~ 24, wherein the minimum surface area axial section plane is at the circular throat end of the acoustic waveguide.
26. (currently amended): The acoustic waveguide of claim ~~[[23]]~~ 24, where the minimum surface area axial section plane is disposed at a midsection of the acoustic waveguide axially between the circular throat end and the non-elliptical closed control ~~surface~~ curve.
27. (currently amended): The acoustic waveguide of claim 14, wherein the first control curve is symmetrical about ~~[[an]]~~ a first axis with the second control curve.
28. (currently amended): The acoustic waveguide of claim 14, wherein the third control curve is symmetrical about ~~[[the]]~~ a second axis with the fourth control curve.